

REMARKS

Reconsideration of the application is requested.

Claims 14-31 remain in the application. Claims 14-31 are subject to examination.

Under the heading "Claim Rejections – 35 USC § 103" on page 5 of the above-identified Office Action, claims 14-20, 30, and 31 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. 2002026304 A to Hirakoso under 35 U.S.C. § 103. Applicants respectfully traverse.

The examiner and counsel held two telephone interviews on April 5, 2011. Applicants appreciate the time and effort expended by the Examiner during those telephone interviews.

During the first telephone interview held on April 5, 2011, the Examiner agreed that the alleged motivation, namely, to acquire uniform image quality in all fields of the pictures concerned, which the Examiner alleged would have motivated one to combine the teachings of Nakamura et al. and Hirakoso, is not supported by the record. The Examiner agreed to withdraw the rejection based on the discussion during the first telephone interview. However, in the second

telephone interview on that date the Examiner stated that he would not withdraw the rejection.

For the record, applicants summarize the issue discussed during that first telephone interview.

In the rejection, the Examiner stated that one would have added the teaching of Hirakoso in order to perform color and monochrome coding separately within an image sensor so as to acquire uniform image quality in all the fields of the pictures concerned. Counsel pointed out that Hirakoso does not provide a field with color encoding and another field with monochrome encoding for the purpose of acquiring uniform image quality in all the fields of the pictures concerned. Rather, Hirakoso teaches obtaining an image with nonuniform image quality in the different fields (see paragraph 4). Hirakoso teaches that the center field with color encoding will provide more information and hence have a greater image quality when compared with the peripheral field having monochrome encoding (see paragraph 3).

Furthermore, paragraph 2, which has been cited by the Examiner to support the Examiner's assertion that Hirakoso teaches a sensor with uniform image quality, actually refers to a sensor that is prior art with respect to the sensor taught by Hirakoso.

Based on the discussion during the first telephone interview, the Examiner agreed to withdraw the rejection. However, later that day the Examiner telephoned counsel to hold a second telephone conference and stated that a second motivation for combining the references is asserted in the office action and that the second motivation adequately supports the rejection. Counsel's additional arguments during this second telephone conference did not persuade the Examiner, and the Examiner stated that the rejection would be maintained.

The Examiner stated that paragraphs 6 and 29 of Hirakoso support the Examiner's second motivation, which appears in the third paragraph on page 6 of the office action, asserting that one would have made the combination to improve the image quality of the image sensor.

However, paragraphs 6 and 29 of Hirakoso do not support the Examiner's second motivation; nor does any other part of Hirakoso. Paragraphs 6 and 29 of Hirakoso each teach that the image quality of the peripheral portion is low compared to that of the central portion and therefore the amount of information contained in the picture can be reduced. Clearly, paragraphs 6 and 29 of Hirakoso do not teach improving the image quality of the image sensor by incorporating a monochrome region in the peripheral region of the sensor. Rather, those paragraphs actually teach that the quality of the image will be degraded since the lower amount of information provided by the monochrome

region enables the total amount of information contained in the picture can be reduced. The record does not support the Examiner's second motivation.

Applicants respectfully believe that the person of ordinary skill in the art would never have interpreted the teaching of Hirakoso in the way the Examiner has done. Therefore, applicants respectfully request that the Examiner discuss the teaching of Hirakoso and the motivations the Examiner has used to support the rejection with his supervisor.

Neither one of the reasons given by the Examiner would have provided a motivation to modify the teaching in Nakamura et al. based on that in Hirakoso. Therefore, the record does not support the rejection, and the claimed invention would not have been suggested.

Furthermore, applicants point out that the actual teaching in Hirakoso would not have provided any motivation to modify the teaching in Nakamura et al. Note that Hirakoso teaches an image sensor that is specifically constructed to gaze at a photographic subject in a way that similar to the way in which a man's eyeball would gaze at the photographic subject (See paragraph 3). Hirakoso teaches that the human eye is more sensitive in the central region and less sensitive in the peripheral region. Hirakoso then attempts to match the sensitivity of the image sensor to the sensitivity of the human eye by constructing the image sensor in a way that provides a greater image quality in the central region corresponding to where the human eye is more sensitive and

that provides a lower image quality in a peripheral region corresponding to where the human eye is less sensitive (See paragraphs 3, 8-12, and 15, for example). By making the image quality of the peripheral portion low compared to that of the central portion (like in a man's eyeball), the amount of information contained in the picture can be reduced (See paragraphs 6 and 29).

However, Hirakoso does not teach anything that would have provided a motivation to incorporate that teaching into the teaching of Nakamura et al. Nakamura et al. are not interested in an image sensor that functions like mans eyeball. Rather, Nakamura et al. are concerned with extracting features from the sensed image. Specifically, Nakamura et al. are concerned with automatically detecting the edges in the sensed image so that their system can automatically obtain information about the surface of the road on which a vehicle is traveling.

Hirakoso does not teach that their specially constructed sensor would improve the way that the edges in a detected image could be found. Nor does Hirakoso teach anything related to obtaining information about the surface of the road on which a vehicle is traveling. Therefore, Applicants believe it is clear that Hirakoso would not have suggested modifying the teaching in Nakamura et al. and that the claimed invention would not have been suggested.

Furthermore, reducing the image quality in the peripheral areas of the image sensor as taught by Hirakoso would not have been desirable in the image

sensor taught by Nakamura et al. because Nakamura et al. specifically want to detect the lane markings which extend into the peripheral areas of the sensor (See Fig. 3A of Nakamura et al. and also Figs. 1 and 4 in applicants' pending application). Therefore, one of ordinary skill in the art would most certainly not be motivated to incorporate the modification that the Examiner has alleged would have been obvious.

Under the heading "Claim Rejections – 35 USC § 103" on page 8 of the above-identified Office Action, claims 21, 22, and 25 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. 2002026304 A to Hirakoso and further in view of U.S. Publication No. 2001/0052938 A1 to Itoh under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 21, 22, and 25 would not have been suggested for the reasons given above with regard to claim 14 and also with regard to claim 20 and the teachings in Nakamura et al. and Hirakoso. The teaching in Itoh does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

Under the heading "Claim Rejections – 35 USC § 103" on page 10 of the above-identified Office Action, claims 23, 24, and 26 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. 2002026304 A to Hirakoso and further in view of U.S.

Publication No. 2002/0039142 A1 to Zhang under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 23, 24, and 26 would not have been suggested for the reasons given above with regard to claim 14 and the teachings in Nakamura et al. and Hirakoso. The teaching in Zhang does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

Under the heading “Claim Rejections – 35 USC § 103” on page 12 of the above-identified Office Action, claims 27, 28, and 29 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. 2002026304 A to Hirakoso and further in view of U.S. Publication No. 2003/0048493 A1 to Pontifex et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 27, 28, and 29 would not have been suggested for the reasons given above with regard to claim 14 and the teachings in Nakamura et al. and Hirakoso. The teaching in Pontifex et al. does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 14 or

30. Claims 14 and 30 are, therefore, believed to be patentable over the art.

The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 14 or 30.

In view of the foregoing, reconsideration and allowance of claims 14-31 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

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Respectfully submitted,

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